MARTIAL ARTS STRIKING MACHINE

Inventor: Steven M. Tomko, R.D. #1, Box 130-C, Auburn, Pa. 17922

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References Cited
U.S. PATENT DOCUMENTS
D. 237,869 12/1975 Siroki 272/77 X
396,938 1/1889 Kemuler 272/76
944,848 12/1909 Austin 272/77
1,679,174 7/1928 Richards et al. 272/76
3,804,406 4/1974 Viscone 272/76

Primary Examiner—Richard J. Apley
Assistant Examiner—T. Brown
Attorney, Agent, or Firm—Philip D. Freedman

ABSTRACT
A striking device for training in martial arts comprises a base and at least two arc supports of differing heights, resiliently attached in a vertical plane to the base; striking area supported on the concave side of the arc supports; adjustable spacers between the arc supports to provide variable tension levels to the arc supports; and a back brace supporting the convex side of at least one of the arc supports and at a point on the convex side so as to provide maximum stable resistance.

3 Claims, 6 Drawing Figures
MARTIAL ARTS STRIKING MACHINE

FIELD OF THE INVENTION

The invention relates to a striking device for use in training in martial arts, such as boxing and karate.

DESCRIPTION OF THE PRIOR ART

Various striking devices for training in martial arts are known. For example, U.S. Pat. No. 4,077,624 teaches a striking device wherein target elements are suspended by a cord from a fixed overhead position and pivoted rod-mounted response elements are balanced between the target elements.

U.S. Pat. No. 3,927,879 teaches a punching bag, having a base for mounting on a stationary surface and a spring biased arm pivotally connected to the base and constrained to move only in a single plane with one end of the arm biased by a spring against a resilient bumper. On the other end of the arm, a deformable pad is presented for striking by the fist and each time the pad is struck, the arm moves back along a linear path against the spring bias and snaps back to its original position for repeated striking. A pair of resilient bumper elements are placed between the pivoted arm and base in spaced relation to each other. One resilient element serves to absorb kinetic energy of the pivot arm when the pivot arm is moved towards the base against the spring bias and the other resilient element serves to absorb the kinetic energy of a pivot arm when the pivot arm is moved away from the base as a result of the spring bias.

U.S. Pat. No. 3,804,406 relates to a mechanical man used as a simulated karate fighter, and U.S. Pat. No. 3,427,021 has to do with a striking device having telescopic tubes, one carrying a striking pad at its free end and the other being mounted on a base attachable to a supported surface.

The study of the martial arts has grown rapidly in the past years. Now there are many participants of varying ages—both male and female. Because of this great variety of participants, there is a great variety in the size, shape, and weight of the students of the arts. None of the prior art devices has been designed to accommodate this variety of users. The present invention is so designed that it has both higher and lower striking surfaces which may be tension adjusted.

SUMMARY OF THE INVENTION

The present invention involves a striking device which has the capability of being used by students of the martial arts who are of a variety of size and strengths. Additionally, the device may be used for numerous defensive strokes, such as punching, striking, and kicking. The striking device of the present invention comprises a base and at least two arc supports of differing heights, resiliently attached in a vertical plane to the base; striking areas supported on the concave side of the arc supports; adjustable spacers between the arc supports to provide variable tension levels to the arc supports; and a back brace supporting the convex side of the last of the arc supports away from the striking area and at a point on the convex side so as to provide maximum stable resistance.

FIG. 1 is a perspective view of the striking device which is the subject of the present invention and additionally shows in phantom a practitioner of the martial arts using the striking machine.
4,309,029

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half inches by three quarter inch in size. The foam padding and oak wood base is covered by vinyl covering.

Steel housing 12 contains the curled end 8 of the steel support 7. The housing is three and a half inches in height and three and a half inches wide and four and a half inches long and is permanently welded to the base plate.

The back brace 13 is an angle iron thirty-four and one-half inches high and one and a half inches by one and a half inches by a quarter inch in size. It is also permanently welded to the base plate. The gusset 14 is a piece of steel eleven inches by a quarter inch in size and fasten to contour to the back brack and the back of the larger 7 of the steel arc supports. The gusset provides added structural strength and increased resistance to striking. The adjustable spacers 16 are made of square tubing one inch by one inch and containing three-eighth inch bolts 17 and secured by nuts 18 connecting the lower steel arc support 6 to the upper 7. Three adjustable spacers 16 are shown in connection with the machine illustrated in the drawings. Respectively the spacers separate the supports by 2, 3 and 4 inches. The lower spacer is eleven inches high, the second, sixteen inches and the third twenty-one and one-half inches from the base plate 1.

What is claimed is:

1. A striking device comprising a base; at least two arc supports of differing heights, resiliently attached in a vertical plane to said base; striking areas supported on the concave side of the arc supports; adjustable spacers between the arc supports to provide variable tension levels to said arc supports; and a back brace supporting the convex side of at least one of the arc supports and at a point on the convex side so as to provide maximum stable resistance.

2. The striking device of claim 1, having two arc supports of differing heights, with three adjustable spacers between the arc supports to provide variable tension levels to said arc supports.

3. The striking device of claim 1, having two arc supports of differing heights, with three adjustable spacers between said arc supports to provide variable tension levels.

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